

COMMENTS ON EPA'S DRAFT CHESAPEAKE BAY TMDL BY THE CORNELL LAW SCHOOL WATER  
LAW CLINIC, ITHACA, NEW YORK

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## **Comments of the Cornell Law School Water Law Clinic, Ithaca, New York, on the Draft Chesapeake Bay TMDL**

### **WHO WE ARE**

The Cornell Law School Water Law Clinic (“Clinic”) is a group of students, professors, and attorneys who have worked closely with local communities in the New York portion of the Chesapeake Bay watershed. For many years these communities have invited us to provide legal research and analysis that inform and assist their water management efforts. Currently, we work on a variety of projects to support municipalities and other local partners as they strive to achieve the twin goals of protecting New York’s water resources and restoring the Chesapeake Bay. We offer our comments on the draft Chesapeake Bay TMDL (also “Bay TMDL”) with the aim of helping EPA establish a final Bay TMDL that is reasonable and cognizant of local conditions; its implementation in the New York portion of the watershed would be impracticable otherwise.

### **OVERVIEW**

The Clinic supports EPA’s goal of restoring the Chesapeake Bay and its network. Having worked with local communities in the New York portion of the watershed for many years, we observe that these constituencies have consistently demonstrated a sustained strong ethic in favor of good water management. The fact that the greater part of New York’s water system already meets its designated water uses<sup>1</sup> reflects this ethic. Even with this record of exceptional stewardship, New York is committed to doing more. Indeed, a number of local communities have already begun pursuing more aggressive measures to decrease nutrient and sediment loading from both point and nonpoint sources feeding the watershed. These enhancements go beyond current EPA regulations and are not necessarily found in other Watershed Partner communities. However, to be fair and practicable, Bay TMDL allocations and the programs required to meet them must account for New York’s local conditions, its achievements, and its future commitments.

In this comment, we discuss our concerns with the draft Bay TMDL allocations as applied to New York. We first point out the need for EPA to lay out more clearly the basis of its TMDL authority under the Clean Water Act section 303(d) and section 117(g) with respect to

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<sup>1</sup> N.Y.S DEP’T. OF ENVTL. CONSERVATION, NEW YORK DRAFT PHASE I WATERSHED IMPLEMENTATION PLAN 6 (Sept. 1, 2010) [hereinafter *WIP I*].

New York in Section I. In Section II, we make a few general criticisms about the TMDLs from the perspective of New York. Next, in Section III and IV, we discuss a number of initiatives that New York local communities have been implementing or are willing to undertake to enhance existing storm water management efforts—strategies that cannot be ignored if the TMDL program is to succeed in this predominantly rural portion of the watershed. As the draft TMDL evolves, we urge EPA to recognize the potential contribution of these local initiatives to pollutant reduction and capitalize on their efforts by directing resources towards expanding their capacity. Finally, we provide a summary of all of our recommendations for EPA in Section V.

## **I. EPA’s Authority to Establish Chesapeake Bay TMDLs for New York**

Whether EPA has the authority to establish Chesapeake Bay TMDLs for New York State under either § 303(d) or § 117(g) of the Clean Water Act is unclear.

### **A. Authority under Clean Water Act § 303(d)**

EPA bases its authority to establish a Bay TMDL for New York upon the Clean Water Act (CWA) § 303(d). However, it is unclear that EPA has followed the scheme envisaged by § 303(d) for setting the Chesapeake Bay TMDL allocations for New York. A comparison of the two procedures serves to clarify this point.

Section 303 of the CWA requires that each state adopt, pursuant to its own law, water quality standards (WQS) applicable to all interstate waters. If a state’s WQS is inadequate, EPA must notify the state and specify changes that must be made. Only when the state again fails to provide a consistent WQS does the CWA allow EPA to set the state’s WQS. Once the WQS is established, CWA § 303(d)(1)(C) requires the states to implement a total maximum daily load (TMDL) that will achieve the applicable WQS. Accordingly, under CWA § 303, TMDLs are driven by WQS in each state. Thus, only when a state fails to submit an appropriate TMDL can EPA establish a TMDL for the state. Indeed, given the primacy of each state in establishing the WQS and load allocations for its intrastate waters, it is reasonable to construe the CWA as requiring WQS and TMDL allocations that accord with the environmental factors unique to each state’s water.

EPA has not followed the statutory scheme set forth in the CWA with respect to New York State. Section 303(d)(1)(C) states that the TMDL in each state “shall be established at a level necessary to implement the applicable water quality standards.” EPA has not specified, however, the applicable Chesapeake Bay WQS for New York State that would form the basis for the TMDL allocated to the state.

Admittedly, there are a few waterbodies in the New York portion of the watershed that are on the § 303(d) list of impaired waters. For example, segments of the Susquehanna River watershed on the § 303(d) list of impaired waters are Beaver Lake (phosphorus), Park Creek and its tributaries (pathogen), Unadilla River (pathogen), White Birch Lake (phosphorous), and Whitney Point Lake/Reservoir (phosphorous).<sup>2</sup> In the Chemung River watershed, segments that are on the § 303(d) list of impaired waters are Koppers Pond (PCBs) and Lake Salubria (phosphorus).<sup>3</sup> Because New York State has not developed TMDLs for these waters, EPA should, and must under § 303(d), establish a phosphorus load allocation for these specific waterbodies. Further, § 303(d) mandates that EPA base New York’s phosphorous allocation on the WQS that New York has set for phosphorous for these waters. Alternatively, under § 303(b)(2), EPA may promulgate a water quality standard if EPA has determined the WQS submitted by the State is inconsistent with § 303(a). However, EPA has neither established a TMDL for the waterbodies in New York State impaired by phosphorus, nor has it determined that the WQS submitted by New York State are inconsistent with the applicable requirements of § 303(a). EPA’s September 24th draft TMDL does not consider New York’s WQS in establishing the Chesapeake Bay TMDL. Rather, EPA has based its phosphorous allocation for New York on phosphorous impairments in the Chesapeake Bay (as opposed to basing the phosphorus allocation on the phosphorus impairments within the New York tributaries). CWA § 303(d) does not contemplate this procedure.

In support of its assertion that § 303(d) authorizes EPA to establish a Chesapeake Bay TMDL for New York, EPA cites three decisions: *Dioxin/Organochlorine Center v. Clarke*, 57 F.3d 1517 (9th Cir. 1995); *Scott v. City of Hammond*, 741 F.2d 992 (7th Cir. 1984); and

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<sup>2</sup> U.S. ENVTL. PROTECTION AGENCY, SECTION 303(D) LIST FACT SHEET FOR WATERSHED: UPPER SUSQUEHANNA,

[http://oaspub.epa.gov/tmdl/huc\\_rept.control?p\\_huc=02050101&p\\_huc\\_desc=UPPER%20SUSQUEHANNA](http://oaspub.epa.gov/tmdl/huc_rept.control?p_huc=02050101&p_huc_desc=UPPER%20SUSQUEHANNA)).

<sup>3</sup> U.S. ENVTL. PROTECTION AGENCY, Section 303(d) List Fact Sheet for Watershed: CHEMUNG, [http://oaspub.epa.gov/tmdl/huc\\_rept.control?p\\_huc=02050105&p\\_huc\\_desc=CHEMUNG](http://oaspub.epa.gov/tmdl/huc_rept.control?p_huc=02050105&p_huc_desc=CHEMUNG).

*American Canoe Ass'n. v EPA*, 54 F.Supp.2d 621 (E.D.Va. 1999). Reliance upon these cases is inappropriate given the very different circumstances they concerned. First, the waterbodies at issue in these cases were all waterbodies of the states in which the TMDLs at issue were established. With respect to the Chesapeake Bay TMDL, bay states such as Virginia and Maryland are analogous to the states discussed in these cases. By contrast, New York does not border the Chesapeake Bay. Secondly, in each of the cases cited, the TMDLs at issue were based on actual, identifiable WQS that each state in question established independently after determining how its specific local conditions affect the impaired waterbody for which the TMDL was established. That has not happened with respect to New York.

Assuming that EPA's TMDL allocations for Bay states such as Virginia and Maryland are based on the WQS that those respective states set, New York is disadvantaged as a tributary state. Virginia and Maryland, in formulating their Chesapeake Bay-specific WQS, had the opportunity to account for their states' unique environmental conditions as these conditions relate to the Chesapeake Bay, but the TMDL applied to New York is unrelated to any New York-specific WQS. Further, without a New York-specific WQS, the state could not fully meet its TMDL allocation, in fact, without any significant improvement in the overall water quality of the Chesapeake Bay, because of the substantially heavier loads downstream that would continue to impair the Bay. Because the Bay TMDL is unrelated to water quality in New York, the state could not determine, with any scientific reliability, that the Bay TMDL no longer applied to the state even when it had remedied the impairments in its New York headwaters within the Chesapeake Bay Watershed. Consequently, the spatial and temporal priorities of New York's water management program for meeting the Bay TMDL will necessarily be driven by loadings from sources determined by book values, rather than by direct and verifiable measures of water quality.

Moreover, EPA's September 24 Draft Chesapeake Bay TMDL purports to discuss the WQS applicable to the "jurisdictions." Unfortunately, EPA only discusses the WQS for Maryland, Virginia, Delaware, and the District of Columbia, notably leaving out New York. Accordingly, the Clinic is concerned that EPA's draft TMDL for its waters is based on a WQS that does not account for New York's extant water quality or the environmental issues unique to the state.

**Recommendation:**

- While EPA can and must establish TMDLs for the Chesapeake Bay and its tributaries, the agency must first establish New York-specific water quality standards to which the TMDLs for New York State can be directly related.

**B. EPA Authority under Clean Water Act § 117(g)**

EPA also asserts that it derives authority to establish Bay TMDL allocations for New York from CWA § 117(g). Section 117(g)(1) provides that:

The Administrator, in coordination with other members of the Chesapeake Executive Council, shall ensure that management plans are developed and implementation is begun by signatories to the Chesapeake Bay Agreement to achieve and maintain [among other things] the nutrient goals of the Chesapeake Bay Agreement for the quantity of nitrogen and phosphorus entering the Chesapeake Bay and its watershed [and] the water quality requirements necessary to restore living resources in the Chesapeake Bay ecosystem.

As New York is not a signatory to the 1983, 1987, 1992, or 2000 Chesapeake Bay Agreements—but only came on to work as a voluntary partner with EPA and other signatories to restore the Bay—EPA’s Bay TMDL allocations for New York do not fall under CWA § 117(g)(1).

Virginia, Delaware, and the District of Columbia are each subject to binding consent decrees requiring them to establish TMDLs for their Chesapeake Bay waters. New York, on the other hand, neither is under a binding consent decree nor has entered into any binding agreement requiring the establishment of TMDLs for its Chesapeake Bay tributaries. Rather, New York simply voluntarily entered into a Memorandum of Understanding which provides that the signatories will develop TMDLs for Chesapeake Bay waters not meeting water quality standards by 2011. A Memorandum of Understanding does not carry the same force of law as the binding consent decrees issued to Virginia, Delaware, and the District of Columbia.

Finally, EPA asserts that the Chesapeake Bay TMDL is a “management plan” within the meaning of CWA § 117(g)(1). EPA defines TMDL as “[t]he sum of the individual wasteload allocations (WLAs) for point sources, load allocations (LAs) for nonpoint sources and natural background, and a margin of safety (MOS). TMDLs can be expressed in terms of mass per time, toxicity, or other appropriate measures that relate to a state's water quality standard.” A TMDL

is a number representing a load for a specified contaminant. It is not a management plan. The management plan discussed in § 117(g) and described in § 117(g)(1) specifically contemplates a comprehensive project, program, or scheme. A management plan developed by a planning process is specified in § 208(b), the elements of which should be incorporated in the continuing planning process set out in 303(e). In no respect can a TMDL be considered a management plan representing such management planning processes. A TMDL is instead a mathematical derivation to assist in achieving the goals of a management plan. The statutory language of § 117(g) itself contemplates a comprehensive plan; it provides a list of water quality goals the management plan must achieve but neither specifies that a TMDL will achieve these various goals nor explicitly designates a TMDL in itself as an appropriate management plan. In short, §117(g) does not explicitly mandate, or even authorize, EPA to establish a TMDL for the Chesapeake Bay tributary states.

**Recommendations:**

- ☐ EPA should explicitly recognize New York State as a voluntary partner—as recorded in the Chesapeake 2000 Agreement—and not as a signatory subject to the Bay TMDL regulations.
- ☐ In accord with the Chesapeake 2000 Agreement, EPA should seek to strengthen its partnership with New York State “by promoting communication and by seeking agreement on issues of mutual concern.” To achieve the Chesapeake Bay water quality objectives outlined in CWA § 117(g)(1), that agreement should be based on a cooperative management plan and mutually agreed upon water quality standards for New York.

**II. Concerns with the Draft Chesapeake Bay TMDL Allocations as Applied to New York State**

The draft TMDL does not reflect the spirit of cooperation and collaboration as agreed to by EPA and the other Watershed Partners in creating a plan to restore the Chesapeake Bay. New York’s current water quality is the highest of any of the Watershed Partners. If all jurisdictions were at New York’s water quality level, the Bay would need no further remedial action. New York has worked for years to achieve these results, implementing programs at the local level to reduce loading. Yet the draft TMDL concludes that New York’s Phase I WIP contains “[s]erious deficiencies.” The Clinic’s work with towns and organizations in New York and our study of

the draft TMDL indicate that this conclusion is unsupported by the record. In evaluating WIPs, EPA asked two primary questions: (1) “Did the jurisdiction meet its target allocations . . . ?” and (2) “If not, did the jurisdiction provide ‘reasonable assurance’ that it would meet these allocations?” EPA found that New York’s nitrogen load is 15 percent over its allocation and its phosphorus load is 14 percent over its allocation. But the initial allocations upon which EPA bases this evaluation are flawed and lead to inequitable results. For example, New York holds about 10% of the total Bay watershed but receives less than 5% of the total nitrogen allocation to the states. By contrast, Maryland comprises about 14% of the total watershed but receives more than 20% of the available nitrogen allocation. Therefore, EPA places a disproportionate amount of the burden on New York, a headwater state, and does so without adequately addressing New York’s draft Phase 1 WIP.

The Clinic is also concerned that the draft Bay TMDL as applied to New York neither accounts for New York’s actual water quality, nor provides an adequate rationale to support its conclusions. Nowhere in the draft Bay TMDL does EPA account for why allocations are not distributed based on the Watershed Partner’s actual nitrogen, phosphorus, and sediment discharge into the Bay. For clarity, we can imagine the Chesapeake Bay as a swimming pool into which each Watershed Partner feeds water via pipes of varying sizes with varying water qualities. The draft Bay TMDL examines the impairment of the swimming pool as a whole and works backwards, requiring each Partner’s pipe to decrease its pollutant loading by a certain percentage without due regard for how clean the pipe’s water already is or how much water the pipe discharges. The more reasonable approach is to look first at the actual water quality at the source and then determine allocations based on how much pollution the Partner’s pipe is adding to the swimming pool. We recognize that EPA may choose its methodology even if alternatives exist. Our assertion is that EPA’s chosen method is unsupported by adequate reasoning and will therefore prove ineffective.

The proposed allocations also put a stranglehold on future economic growth within the region. Given that the allocations are impractical to achieve, communities in New York’s watershed jurisdiction would be unable to develop agricultural or non-agricultural businesses



that would jeopardize increasing loading from point or nonpoint sources.<sup>4</sup> To assist with decreasing loading and mitigating harsh economic consequences, the Clinic has actively worked with rural areas of New York to implement appropriate strategies. However, additional funding will be necessary for these programs to be successful.

**Recommendations:**

- ☐ Reconsider New York's TMDL allocations for nitrogen and phosphorus in the final TMDL, taking account of New York's actual water quality, and thus raise nitrogen and phosphorus allocations for New York.
- ☐ Redistribute TMDL allocations equitably amongst Watershed Partners to reflect the percentage of the watershed contained within each given jurisdiction.
- ☐ Provide additional funding to New York through the Chesapeake Bay Implementation grants, Nonpoint Source Control grants, Section 106 grants for water pollution control programs, the Clean Water State Revolving Loan Fund, and the American Recovery and Reinvestment Act.

**III. New York's Exceptional Water Stewardship Should be Recognized**

New York's current water quality—the highest of any of the Watershed Partners<sup>5</sup>—has been achieved by years of collaboration with local communities to reduce nitrogen, phosphorus, and sediment loading through a number of innovative methods addressing both point and non-point sources. Important resources such as the New York State Agricultural Environmental Management Program (AEM) and the Upper Susquehanna Coalition<sup>6</sup> (USC) have been successfully engaging in nutrient and sediment reduction efforts for many years. They are now poised for the work of implementing the Bay TMDL; we urge EPA to direct funding towards enhancing their capacity.

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<sup>4</sup> See Draft TMDL at app. S-2. Thus, since New York would not even meet its initial allocations, any additional loading would not even qualify as “new or increased loading” defined in the draft TMDL as occurring “*after the point in time the source begins meeting its WLA or LA.*” *Id.* (emphasis in original).

<sup>5</sup> See *WIP I* at 6.

<sup>6</sup> The USC is a bi-state network of 19 SWCDs with a mission to conserve soil and water resources in the headwaters of the Susquehanna River and Chesapeake Bay watersheds.

### **A. New York State Agricultural Environmental Management Program**

In working with local farmers, the Clinic has had the opportunity to observe how New York has been able to make significant progress in reducing nutrient loading from agricultural non-point sources by investing in the highly successful New York State Agricultural Environmental Management Program (AEM). Using an incentive-based approach, AEM taps into the technical expertise and local relationships of the state's Soil and Water Conservation Districts (SWCDs) to assist farmers in implementing agricultural conservation practices and complying with CAFO regulations. New York solidified its commitment to reducing agricultural nutrient loading by codifying AEM into law in 2000.<sup>7</sup> With reference to AEM in its evaluation of New York's Phase 1 WIP, however, EPA takes the view that "high implementation rates [are] unlikely if [the state] relies on voluntary programs."<sup>8</sup> This statement is clearly inconsistent with EPA's acknowledgement that New York's CAFO and AEM programs cover 95% of the dairy farms in the New York portion of the Chesapeake Bay watershed and that more than 12,000 farms statewide are involved in AEM. EPA incorrectly assumes that AEM participation is entirely voluntary. AEM is not entirely voluntary. In fact, permits for CAFO operations *require* Comprehensive Nutrient Management Plans (CNMPs), and the CNMP training and certification program is managed through AEM.<sup>9</sup>

The agricultural nitrogen load delivered from New York decreased more than 27 percent according to the latest "progress run" modeling by EPA,<sup>10</sup> an achievement due in large part to AEM. Yet, New York receives no acknowledgement for this nitrogen loading reduction in the draft TMDL model. We urge EPA to better recognize the contribution of AEM. EPA can do this by adjusting New York's nitrogen loading allocation and by directing funding towards

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<sup>7</sup> N.Y.S DEP'T. OF ENVTL. CONSERVATION, NEW YORK STATE TRIBUTARY STRATEGY FOR RESTORATION OF THE CHESAPEAKE BAY 24 (Sept. 2007) (hereinafter "TRIBUTARY STRATEGY").

<sup>8</sup> U.S. ENVTL. PROTECTION AGENCY, SUMMARY: EPA EVALUATION OF NEW YORK DRAFT WATERSHED IMPLEMENTATION PLAN 1 (Sep. 24, 2010), [http://www.epa.gov/reg3wapd/pdf/pdf\\_chesbay/WIPEVALUATIONS/NYWIPEvaluationSummary\\_9222010Final.pdf](http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/WIPEVALUATIONS/NYWIPEvaluationSummary_9222010Final.pdf).

<sup>9</sup> "CNMPs are the foundation for the New York State Department of Environmental Conservation's environmental regulatory program to control potential water pollution from CAFOs under State General Permit GP-04-04, and are also a requirement for farms seeking federal or state cost-sharing to construct a manure storage structures." New York State Soil & Water Conservation Committee, Comprehensive Nutrient Management Plan (CNMP) Guidance for Planners, <http://www.agmkt.state.ny.us/SoilWater/aem/cnmp.html> (last visited Nov. 4, 2010).

<sup>10</sup> See WIP I at 13.

enhancing AEM capacity. The latter would be particularly helpful because there is currently no dedicated funding stream for agriculture in this watershed; AEM funds are usually obtained from competitive grants. In evaluating New York's WIP, EPA points out the need for information on how Chesapeake Bay Regulatory and Accountability Program (CBRAP) grants will be used towards enhancement of regulatory programs. We respond by noting that a major component of AEM is to assist farmers with CAFOs compliance,<sup>11</sup> and the program's contribution to this type of regulatory enhancements should be recognized.

**Recommendation:**

- ☐ EPA should adjust New York's nitrogen allocation and work with the state to establish a dedicated funding source for AEM to help secure its capacity and long-term stability.

**B. The Upper Susquehanna Coalition**

Floods and high river flows following storms account for most of the nutrients and sediment loads carried in the Susquehanna River in New York State. Over the last ten or more years, the USC, with some assistance from the Clinic, has developed an innovative wetland and riparian corridor program. Wetlands absorb the energy of flood and storm waters and reduce pollutant loads. Riparian corridors are the last barrier against water quality degradation. The USC program aims to attenuate peak and stormwater flows and maintain the integrity of stream corridors. As a result, the transport of nutrient and sediment loads delivered from New York State is significantly reduced. EPA can enable similar achievements for the benefit of the Chesapeake Bay by directing Chesapeake Bay Program resources towards enhancing the capacity of USC and similar bodies in other states.

**Recommendation:**

- ☐ Because wetlands and riparian corridors are local responsibilities, EPA should support and foster the capacity of local communities, through technical providers such as the USC, to adopt technical and legal tools that protect wetlands and riparian corridors to control and limit nutrient and sediment transport to streams.

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<sup>11</sup> See WIP I at 40.

#### **IV. Local Commitment to Enhanced Stormwater Management**

Local communities in New York are willing to go beyond existing regulatory and non-regulatory water protection efforts. In its evaluation of New York’s draft Phase 1 WIP, EPA points out the need for more information on how enhancements to current water quality programs will be implemented.<sup>12</sup> Responding to this, we point out that EPA should recognize the contribution of these local initiatives in its TMDL implementation strategy for New York and, more practically, capitalize on these local initiatives by directing grant resources towards enhancing their capacity. The following sections describe these initiatives and our related recommendations in greater detail.

##### **A. Road Drainage in Rural Areas**

The extensive network of rural roads and highways in the New York portion of the watershed makes roadside ditches a major pollutant pathway. New York municipalities have approached this challenge as an opportunity to abate nutrient and sediment loading in stormwater runoff in innovative ways.<sup>13</sup> For example, although it is not a regulated MS4, the Town of Danby voluntarily adopted a stormwater ordinance that incorporates New York State’s Phase II Stormwater regulations to address erosion and sedimentation. Additionally, the Town created a special task force to explore the development of an enhanced drainage management scheme to reduce pollutant loading in stormwater runoff—this scheme could serve as a model for similar headwater communities.

Working with the Cornell Law School Water Law Clinic, the neighboring towns of Caroline and Newfield, the Tompkins County Soil and Water Conservation District and the Upper Susquehanna Coalition, Danby proposes to develop and implement practical drainage management practices and regulations that will retard nutrient and sediment delivery to local water resources and the Chesapeake Bay while minimizing financial hardship. In targeting pollution sources that are unique to the hilly and flood-prone landscape of rural New York, the enhanced drainage management scheme will focus on: (1) road ditching practices, especially those on the region’s many unpaved town roads, logging roads, and other access and back roads;

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<sup>12</sup> *Supra* note 12.

<sup>13</sup> *See WIP I* at 44.

(2) impervious surfaces; and (3) stormwater controls that focus on retaining the natural features of the watershed hydrology.

In evaluating New York's draft Phase I WIP, EPA observes that the state could "consider more controls on state and county roads to reduce loads from impervious surfaces outside MS4 communities."<sup>14</sup> Innovative and aggressive efforts such as the Town of Danby's proposed enhanced drainage management scheme directly respond to this need.

**Recommendation:**

- Although roads and ditches play a central role in pollutant transport and delivery, they are often neglected in conventional stormwater management programs. To help New York fill this gap, EPA should provide support to local initiatives such as the enhanced drainage management scheme proposed by the Town of Danby in its final Bay TMDL implementation strategy.

**B. Urban Stormwater Management**

New York communities are also willing to do more to reduce pollutant loading from urban land, using both enhanced regulations and additional incentive-based methods. As an example, the Otsego County Soil and Water Conservation District and the Cornell Law School Water Law Clinic are currently working on a model stormwater ordinance for the City of Oneonta's consideration. The ordinance is intended to create a comprehensive green infrastructure program that would control runoff from the city's impervious surfaces through a combination of targeted stormwater projects, regulatory requirements for both new and existing development, and retrofit incentives.

To retrofit its public infrastructure, Oneonta is prepared to consider forming an interdepartmental task force that would site a stormwater retrofit demonstration project, write new specifications for future street reconstruction and other projects, and estimate annual spending increases for green infrastructure construction and maintenance. As incentives for green infrastructure such as green roofs and urban gardens, Oneonta is also prepared to consider property tax abatements, grants, or cost-share agreements.

Additionally, Oneonta is prepared to consider regulations that would limit runoff from new development, require rooftop or rain barrel retention for all buildings, require landscaping or

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<sup>14</sup> *Supra* note 12 at 2.

permeable pavement on commercial and multi-family residential complex driveways and parking lots, as well as vacant lots, and charge a stormwater fee upon non-compliance. These are “strong, unqualified, enforceable performance standards” that go beyond “referencing a manual,” as EPA has said in its evaluation of New York’s draft Phase I WIP.<sup>15</sup> A model urban green infrastructure program such as that being pursued by the City of Oneonta can be replicated in other areas of the watershed to reduce nitrogen loading from urban land.

**Recommendation:**

- Because reducing pollutant loading from urban land is an important gap-filling strategy for New York, Chesapeake Bay Program resources should be directed towards promoting the program.

**C. Natural Gas Drilling**

In setting TMDL allocations for New York, it is crucial that EPA account for other unique impacts on the state’s water quality, namely those posed by potential high-volume natural gas drilling on the Marcellus Shale. The Clinic’s experience in working with local governments to assess the potential impacts of natural gas drilling on road infrastructure persuades us that the level of nutrient reduction envisaged by EPA for New York will be impossible to achieve if natural gas drilling, currently subject to a New York State moratorium, begins in the area.

Road damage created by gas drilling trucks, along with impacts from constructing extensive pipelines, will result in significant sediment and nutrient erosion. A vast majority of the town and county roads in the New York portion of the watershed are not designed to withstand the heavy-load and high-volume truck traffic necessary for drilling activities. Field observations elsewhere have consistently demonstrated that the large-scale industrial activities associated with gas drilling, the construction of multiple pipeline rights of way, and the inordinately heavy traffic on rural roads and back roads together create incalculable loads of sediment and pollutants that are conveyed to streams in runoff.<sup>16</sup> Yet, neither the draft Bay TMDL, nor EPA’s evaluation of the New York Phase 1 WIP addresses natural gas drilling

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<sup>15</sup> See *supra* note 8 at 2.

<sup>16</sup> M. Lovegreen, Presentation to the Cornell Law School Land Use Clinic, Perspective on Gas Wells, Bradford County Soil Conservation District (March 2005).

issues. EPA cannot continue to ignore a consequence of this magnitude if it is to set sediment and nutrient allocations that are reasonable and practicable for New York.

In the likely event that natural gas drilling on the Marcellus Shale occurs in New York, it will be necessary for the state to expand enforcement of its water quality regulations to achieve its Bay TMDL allocations. A consistent theme in EPA's evaluation of New York's draft Phase I WIP is how the state will go about strengthening enforcement of the Clean Water Act. Given their technical expertise and strong relationship with rural New York communities, Soil and Water Conservation Districts can play many useful roles in accomplishing this task. For example, they can: (1) provide technical assistance to municipalities in reviewing Stormwater Pollution Prevention Plans (SWPPPs) required for new road construction sites; (2) act as third-party inspectors to assist municipalities in monitoring SWPPP compliance and to ensure that storm drainage best management practices are employed on access roads and pipeline right-of-ways; (3) assist local municipalities in delineating and protecting ecologically sensitive areas such as wetlands, which act to reduce pollutant transport to streams; and (4) assist gas companies in locating access roads so as to avoid such ecologically sensitive areas.

Technical providers such as New York's Soil and Water Conservation Districts are essential for successful TMDL implementation the New York portion of the Chesapeake Bay watershed. In areas where natural gas drilling may occur, EPA can limit the impacts of gas drilling activities on roads, and hence reduce pollutant loading, by enhancing the capacity of these local technical providers.

### **Recommendations:**

- ☐ EPA must start addressing natural gas drilling issues when determining TMDL allocations for New York.
- ☐ EPA should direct greater institutional and financial support to local technical providers such as a state's SWCDs.

### **D. Education and Outreach**

Successful implementation of the Bay TMDL will also require enhancement of legal understanding among community decision-makers, especially in rural areas where it may be

difficult to gain access to useful information. To fill this gap, the Cornell Law School's Water Law Clinic is pursuing a project, called "Follow the Water," to compile and explain the legal framework surrounding water quantity and quality issues and to facilitate information exchange amongst local communities using an online blog.

By presenting the legal framework of federal, state, and local water law in a layperson-accessible format, the blog will provide local governments the legal tools they need to amend or strengthen their stormwater regulations and also to protect local wetlands as required by the Clean Water Act and the New York State Articles of Environmental Conservation, which provide for stricter wetland protections than does the Clean Water Act itself. Additionally, the blog will allow communities to share their programs, thereby helping other local governments enhance their own stormwater regulations, local wetland ordinances, stream corridor ordinances, and floodplain protective measures.

While the main focus of the Bay TMDL is water quality, the high risk of flash flooding in the New York portion of the watershed requires a strategy that also accounts for water quantity challenges, because the volume and energy of such floods can cause heavy loads of sediment and other pollutants to move quickly into streams. One avenue is for local communities to enact permit systems and other regulations to prevent and mitigate the impacts of flooding on local water resources. To promote this, the Clinic is working to explore the authority of local governments to regulate land use and development in flood plains by discussing existing approaches and considering new ones. We will also provide an online forum for communities to share successful implementation strategies, to express concerns and problems, and to exchange water policy information.

Recognizing that education is a critical tool in the protection of water resources at the local level, the Clinic also seeks to strengthen understanding of water issues by individual community members. Following programs such as Project WET, which demonstrates the effectiveness of strengthening community understanding of water issues through high schools, the Clinic is developing a curriculum for high school students. The curriculum addresses water pollution and protection issues within their legal framework. This complements other work with communities by the Clinic that is designed to strengthen capacities to protect water resources at the local level.



**Recommendation:**

- ☐ EPA should direct its education and outreach resources towards encouraging local communities to access and participate in online forums, such as that provided by the Clinic's blog, in order to quickly and easily share information about what works, what does not, and how to go about addressing water quality and quantity concerns in their jurisdictions.

**V. Summary of Recommendations****EPA's Authority to Establish Chesapeake Bay TMDLs for New York:**

- ☐ While EPA can and must establish TMDLs for the Chesapeake Bay and its tributaries, the agency must first establish New York-specific water quality standards, to which the TMDLs for New York State can be directly related.
- ☐ EPA should explicitly recognize New York State as a voluntary partner—as recorded in the Chesapeake 2000 Agreement—and not as a signatory subject to the Bay TMDL regulations.
- ☐ In accord with the Chesapeake 2000 Agreement, EPA should seek to strengthen its partnership with New York State “by promoting communication and by seeking agreement on issues of mutual concern.” To achieve the Chesapeake Bay water quality objectives outlined in § 117(g)(1), that agreement should be based on a cooperative management plan and mutually agreed upon water standards for New York.

**Draft Chesapeake Bay TMDL Allocations as Applied to New York State:**

- ☐ Reconsider New York's TMDL allocations for nitrogen and phosphorus in the final TMDL, taking account of New York's actual water quality and thus raise nitrogen and phosphorus allocations for New York.
- ☐ Redistribute TMDL allocations equitably amongst Watershed Partners to reflect the percentage of the watershed contained within a given jurisdiction.
- ☐ Provide additional funding to New York through the Chesapeake Bay Implementation grants, Nonpoint Source Control grants, Section 106 grants for water pollution control programs, the Clean Water State Revolving Loan Fund, and the American Recovery and Reinvestment Act.

**Agricultural Nitrogen Loading:**

- ☐ EPA should adjust New York's nitrogen allocation and work with the state to establish a dedicated funding source for AEM to help secure its capacity and long-term stability.

**Wetlands and Riparian Corridors:**

- ☐ Because wetlands and riparian corridors are local responsibilities, EPA should support and foster the capacity of local communities, through technical providers such as the USC, to

adopt technical and legal tools that protect wetlands and riparian corridors to control and limit nutrient and sediment transport to streams.

**Rural Stormwater Management:**

- Although roads and ditches play a central role in pollutant transport and delivery, they are often neglected in conventional stormwater management programs. To help New York fill this gap, EPA should provide support to local initiatives such as the enhanced drainage management scheme proposed by the Town of Danby in its Bay TMDL implementation strategy.

**Urban Stormwater Management:**

- Because reducing pollutant loading from urban land is an important gap-filling strategy for New York, Chesapeake Bay Program resources should be directed towards promoting the program.

**Natural Gas Drilling Issues:**

- EPA must start addressing natural gas drilling issues when determining TMDL allocations for New York.
- EPA should direct greater institutional and financial support to local technical providers such as a state's SWCDs.

**Education and Outreach:**

- Successful implementation of the Bay TMDL will require enhancement of legal understanding among community decision-makers, especially those in rural areas. EPA should direct its education and outreach resources towards encouraging these communities to access and participate in online forums, such as that provided by the Clinic's blog, in order to quickly and easily share information about what works, what does not, and how to go about addressing water quality and quantity concerns in their jurisdictions.

**VI. Conclusion**

The Clinic greatly appreciates the opportunity to comment on the draft Chesapeake Bay TMDL.

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Respectfully submitted,

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